

CUBAN MEDICINAL PLANTS



DEVELOPMENT OF NATURAL PRODUCTS IN CUBA



THE CUBAN ARCHIPELAGO HAS A RICH BIODIVERSITY THAT HAS BEEN USED BY THE ABORIGINAL POPULATION, BLACK SLAVES, MEXICAN, ASIAN AND OTHER IMMIGRANT GROUPS, AND FARMERS. IT PROVIDES A SOUND BASIS FOR FUTURE, SUSTAINABLE DEVELOPMENT.



STRENGTHS OF THE CUBAN PLANT-BASED PHARMACEUTICAL DEVELOPMENT:

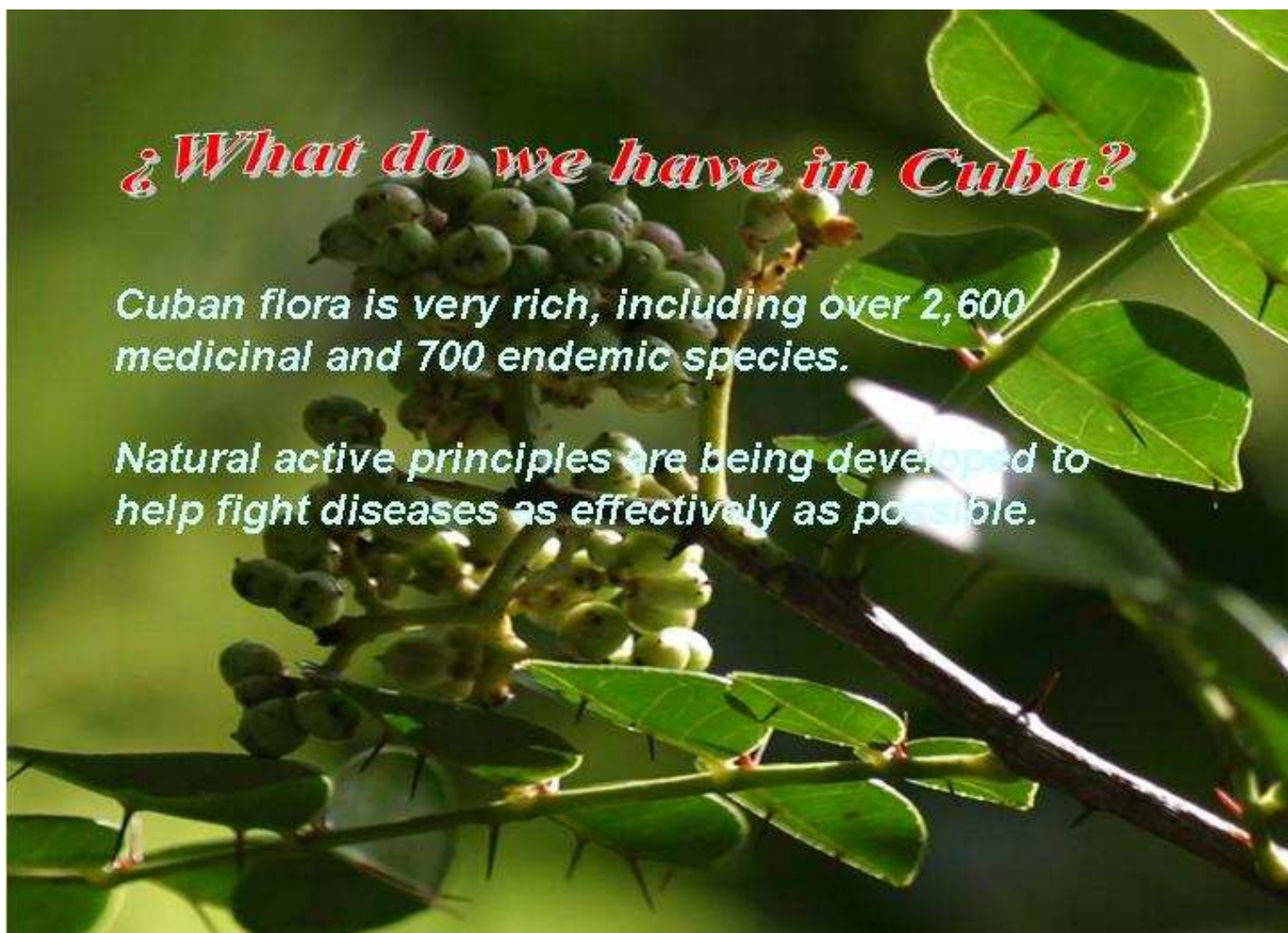
- ✓ A RICH MEDICINAL PLANT BIODIVERSITY
- ✓ DEEPLY ROOTED, WIDESPREAD USE
- ✓ EXTENSIVE NATIONAL SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT
- ✓ INCREASED KNOW-HOW AND BUSINESS INTEREST
- ✓ NATIONAL TRADITIONAL AND NATURAL MEDICINE DEVELOPMENT
- ✓ NATIONAL SUSTAINABLE DEVELOPMENT PROGRAM
- ✓ APPROPRIATE SOCIAL, POLITICAL, TECHNOLOGICAL AND PRODUCTION INFRASTRUCTURE



¿What do we have in Cuba?

Cuban flora is very rich, including over 2,600 medicinal and 700 endemic species.

Natural active principles are being developed to help fight diseases as effectively as possible.



**MINISTRY OF PUBLIC HEALTH
TRADITIONAL AND NATURAL MEDICINE PROGRAM**

AIMS

- **Conduct studies to develop new plant-based products and technologies, and**
- **Identify and obtain new active principles for drug development.**

**PLANT-BASED PHARMACEUTICAL PRODUCTION
CENTERS**

THERE ARE 50 GREEN MEDICINE PRODUCTION CENTERS IN CUBA, INCLUDING 14 PROVINCIAL FACILITIES AND ONE CENTER IN THE SPECIAL MUNICIPALITY OF THE ISLE OF YOUTH.



- **A TOTAL OF 26 PLANT SPECIES WERE APPROVED BY THE PHARMACEUTICAL CONTROL AGENCY IN 2006 TO DEVELOP 32 NATURAL PRODUCTS.**

Medicinal Plant



- *Allium sativum* L. **Antirheumatic, fungicidal, hypoglyceric.**
- *Aloe vera* L. **Cicatrizant, anti-inflammatory.**
- *Caléndula officinalis* L. **Antiseptic, anti-inflammatory.**
- *Cassia grandis* L. **Antianemic, fungicidal.**
- *Citrus aurantium* L. **Anti-phlebitic, diuretic.**
- *Citrus sinensis* L. **Diuretic, anti-phlebitic.**
- *Cymbopogon citratus* D.C. **Diuretic, antihypertensive, anti-inflammatory.**
- *Eucalyptus citriodora* H. **Antiseptic, cough suppressant.**
- *Justicia pectoralis* J. **Sedative.**
- *Lippia alba* M. **Analgesic.**
- *Matricaria recutita* L. **Anti-inflammatory, fungicidal, antispasmodic.**
- *Mentha arvensis* L. **Antispasmodic, anti-inflammatory for respiratory tract.**

Medicinal Plants



- Mentha piperita* L. **Antispasmodic.**
- Mentha spicata* L. **Antispasmodic.**
- Ocimum basilicum* L. **Antispasmodic.**
- Orthosiphon aristatus* B. **Diuretic.**
- Passiflora incarnata* L. **Sedative.**
- Pedilanthus tithymaloides* L. **Stomatitis, gingivitis, mouth ulceration.**
- Pinus caribaea* M. **Fungicidal**
- Plantago lanceolata* L. **Anti-inflammatory, antiseptic.**
- Plantago major* L. **Mouth ulceration, stomatitis, gum inflammation.**
- Plectranthus amboinicus* L. **Expectorant, cough suppressant.**
- Psidium guajaba* L. **Fungicidal, antidiarrheal.**
- Rhizophora mangle* L. **Cicatrizant, anti-ulcer, antiseptic.**
- Zingiber officinale* R. **Anti-flatulent, for dyspepsia, gastrointestinal colic, vomit and diarrhea.**



***Allophylus cominia* (L) Sw (Palo de caja)**

HYPOGLYCEMIC AND ANTI-OXIDANT EFFECT OF ITS ALCOHOLIC AND AQUEOUS EXTRACT

The plant has been traditionally utilized. Research findings suggest its use in alternative diabetes treatment.



***Aloe vera* L. (sábila)**

RECURRENT STOMATITIS, PSORIASIS



The leaves are used as cicatrizant, anti-inflammatory, skin protective, bacterial killer, laxative and for detoxification.



***Calendula officinalis* L. (caléndula, maravilla)**

VAGINAL MONILIASIS, PROSTHETIC STOMATITIS,
BILIARY DRIANAGE, IMMUNO-STIMULANT



Other properties include cytostatic agent, antispasmodic, antiseptic, sedative, analgesic, anti-dysmenorrheal, resolvent, hemostatic, for skin and mucous diseases, and tonsillitis mouthwash.

***Cucurbita moschata* Duch and *Cucurbita pepo* L. (Pumpkins)**

BENIGN PROSTATIC HYPERTROPHY, TOOTH
DECAY AND BONE DECALCIFICATION
PREVENTION AGENT



***Psidium guajaba* (Guava)**

CHRONIC GINGIVITIS



***Tamarindo indica* L (Tamarind)**

(JALSALOM)

LIVER PROTECTION AGENT, ANTIOXIDANT



Other properties include laxative, antiseptic, diuretic, anti-lithiasis.



Mangifera indica L. (mango) (VIMANG)

ANTIOXIDANT, STIMULANT



MANGO TREE TRUNK BARK SOLUTION (Mangifera indica L)

It is used in systemic lupus, psoriasis, prostatic hyperplasia, cancer, prostatitis, bronchial asthma, rheumatic arthritis, infertility.



Musa paradisiaca (Plantain pseudo-stem) (ACITAN)

NATURAL FOOD SUPPLEMENT (POWDER), COLO-RECTAL PATHOLOGIES, ULCERATIVE COLITIS, ANTIOXIDANT



Piper auritum HBK (Anise caisimón)

ANTI-INFLAMMATORY, ANTISPASMODIC CREAM

(Antimicrobial and vasodilator)



***Petiveria allicea* L. (Anamú)**

**PSORIASIS, IMMUNOSTIMULANT
(FOR CANCER AND AIDS PATIENTS)**



The whole plant (processed) is used for cancer and diabetes; it is anti-inflammatory, anti-viral, anti-tumoral, and anti-leukemic.



***Saccharum officinarum* L. (Sugarcane)**

FOR HIGH CHOLESTEROL, PLATELET ANTI-AGGREGATE



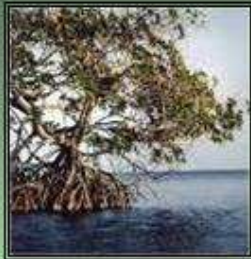
It is ideal for patients suffering from hyperlipoproteinemia (type II a: high cholesterol and LDL values and type II b: high cholesterol, LDL and seric triglyceride values).



***Rhizophora mangle* L (red mangrove)**

(CIKRON-H)

**OPEN WOUNDS, ULCERATIVE COLITIS, GASTRODUODENAL
ULCERS, ANTI-INFLAMMATORY, ANTIOXIDANT**



*It is also used for throat conditions,
hair care and as repellent.*



***Roystonea regia* (Kunth) O. F. Cook (royal palm tree) (D-**

084)

BENIGN PROSTATIC HYPERPLASIA



Areaceae palm trees abound
in Cuba. They are used for
ornamental, industrial,
medicinal, nutritional and
cosmetic purposes.



***Zingiber officinale* Roscoe (ginger)**

FOOD SUPPLEMENT, DIGESTIVE TONIC, PULMONARY EMPHYSEMA, ANTI-INFLAMMATORY, PASSIVE CUTANEOUS ANAFILAXIA AND BRONCHIAL SPASM



It is commonly used for diarrhea, vomit, gastralgia, indigestion, flu, whooping cough, fever, cold, allergy and bronchial asthma.



***"Nature is like a laboratory,
nothing is lost"***

Jose Marti



Thank you very much

Prof. Florana Menendez

SEE YOU IN CUBA THE NEXT YEAR – ETNOMEDICINA 2011





Taller

"Química de los Productos Naturales"

14 de Marzo del 2011, La Habana, Cuba

En el Año Internacional de la Química, la Sociedad Cubana de Química (SCQ), la Sociedad Italo-Latinoamericana de Etnomedicina (SILAE), la Federación de Medicinas Naturales del Caribe (FENAMAN), el Centro de Química Biomolecular (CQB) y el Centro de Investigación y Desarrollo de Medicamentos (CIDEM), se complacen en invitarlo a participar en el Taller "Química de los Productos Naturales" que se efectuará el 14 de marzo del 2011 en el CIDEM, La Habana, Cuba.

Señalamos una oportunidad especial para divulgar e intercambiar los avances más recientes en los campos relacionados con los Productos y Medicinas Naturales.

Al Taller se convocan a investigadores, profesionales, especialistas, técnicos, médicos, clínicos, terapeutas, directivos, maestros, empresarios y todo personal vinculados con Productos y Medicinas Naturales.

El Programa del evento se confecciona sobre la base de Conferencias Magistrales que se serán impartidas por reconocidos científicos que abordarán los temas siguientes:

- TROFIN y sus nuevas formulaciones para la salud humana, *Dr. Elisa Aznar*
- Aceites Ozonizados, utilidad terapéutica, *Dr. Maritza Díaz*
- VIMANG, mejoramiento de la calidad de vida, *Dr. René Delgado*
- Plantas Medicinales Cubanas, *Dr. José A. González*
- Aspectos regulatorios de productos naturales en Cuba, *Dr. Diadelis Remirez*
- Título pendiente, *Prof. Luca Rastrelli (Italia)*
- Título pendiente, *Prof. Giancarlo Pantaleoni (Italia)*
- Fruticultura Tropical, (conferencista por confirmar)
- Gangliosidos a partir de fuentes naturales, *Mesa Redonda*
- I + D en Productos Naturales en el CIDEM, *Mesa Redonda*

La inscripción al Taller podrá realizarse a partir del 1ro. de enero del 2011 mediante correo electrónico dirigido a:

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 Centro de Química Biomolecular
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